

7/20/95

DEPENDENT CONVERGING INSTRUMENT APPROACHES (DCIA)
SUBJ: WITH CONVERGING RUNWAY DISPLAY AID (CRDA)

1 **PURPOSE.** This order defines the criteria and establishes the procedures for implementing Dependent Converging Instrument Approaches (DCIA) to converging intersecting and nonintersecting runways utilizing Converging Runway Display Aid (CRDA).

2 **DISTRIBUTION.** This order is distributed to branch level in Washington Air Traffic offices, Office of Integrated Safety Analysis, Office of Aviation System Standards, Flight Standards Service, Office of International Aviation, Office of Airport Planning and Programming, and Office of Airport Safety and Standards; division level in regional Air Traffic, Airports, Flight Standards Divisions; and all air traffic field offices and facilities.

3. **CANCELLATION.** Order 7110.110, Dependent Converging Instrument Approaches (DCIA) With Converging Runway Display Aid (CRDA), dated November 30, 1992, is canceled.

4. **BACKGROUND.**

a. A few airports conduct simultaneous converging approach operations in instrument flight rules (IFR) weather conditions through the application of visual separation and in accordance with a local directive specifying conditions and procedures. Four airports are operating simultaneous converging instrument approaches (SCIA) in accordance with the latest edition of Order 7110.98, Simultaneous Converging Instrument Approaches. Many airports cannot use Order 7110.98 procedures below decision heights lower than 1,000 feet due to the runway layout.

b DCIA was developed to increase airport capacity in IFR weather conditions for those airports with converging intersecting or nonintersecting runways. The DCIA procedure, using alternating (staggered) approaches, permits the use of lower decision heights while protecting for possible consecutive converging missed approaches.

c. The CRDA tool was developed to assist controllers in maintaining the stagger distances established between aircraft using DCIA.

5. EXPLANATION OF CHANGES. This change refines the implementation process, removes the artificial minimums requirement, amends the criteria to an included angle between runway approach courses of not less than 45 degrees, modifies the user notification period of 90 days to 30 days in order to be consistent with Order 7110.98, and changes training requirements to reflect the current Instructional Program Guide (IPG).

6. DEFINITIONS.

a. Commissioning Readiness Review (CRR). A telephone conference between national, regional, and facility personnel to review the facility's readiness to proceed with the operational use of the CRDA software.

b Common Point. Point of intersection of converging approaches. The common point is the runway intersection when runways intersect and the point of intersection of the extended centerlines when the runways do not intersect. This is the common point or points used by the CRDA software to project the ghost target. The distance from the actual aircraft to the common point is equal to the distance from the common point to the ghost target depiction on the converging runway. (Reference Appendix 1, Figures 1 and 3)

c. Consecutive Missed Approaches. Missed approaches by aircraft on two converging approaches occurring within 2 minutes of each other.

d Converging Runway Display Aid (CRDA). A computer software display tool designed to aid controllers in conducting instrument approaches to dependent converging runways.

e. Dependent Converging Instrument Approach (DCIA). An approach procedure conducted to converging runways with missed approach points and/or thresholds separated by less than the required minimum lateral separation.

f Ghost Data Block (GDB). Limited data block associated with the ghost target.

g Ghost Target. An image of an aircraft depicted at a position other than the actual location of the aircraft. The ghost target and the actual target are equidistant from a common point. (Reference Appendix 1, Figure 2)

h Stagger. The difference in range from the common point between two aircraft on converging approaches. This is equal to the difference in range between one aircraft and the ghost target of another aircraft on a converging approach.

i. Stagger Operation. The vectoring of aircraft to land in a staggered mode on one runway with those landing on the converging runway while protecting for consecutive missed approaches on either runway.

j Tying Function. The use of the CRDA tool during visual flight rules (VFR) weather conditions to assist the controller in spacing aircraft to arrive at their respective runway threshold at or near the same time.

7. **CRITERIA.** The criteria for conducting DCIA with CRDA to a converging runway pair are:

a. Operating control tower.

b. Operational radar and ARTS.

c. Operational CRDA.

d Straight-in instrument landing system (ILS), microwave landing system (MLS), or localizer on each runway.

e. Required navigational aids and operating pilot/controller communications.

f. Nonintersecting final approach courses.

g Included angle between the runway approach courses of not less than 45 degrees or greater than 120 degrees'.

h. The published missed approach procedures for both runways shall be defined by one of the two following criteria:

(1) Straight out missed approaches until the paths cross at the common point. The missed approach procedure beyond the common point shall provide for route divergence of 45 degrees or greater. (Reference tables in Appendix 1)

(2) Terminal instrument procedures (TERPS) defined protected airspace associated with missed approach paths that do

not overlap. Criteria for TERPS protected approaches are not referenced by the tables in Appendix 1 of this order. The use of TERPS defined protected airspace associated with missed approach procedures require review and concurrence from the Air Traffic Division, the Flight Standards Division, and the Civil Operations Program (ATM-100).

i. Direct communication capability between the final approach control position for each runway and the associated local control position.

8 **PROCEDURES.** DCIA procedures shall be developed by facilities in accordance with separation criteria contained in the latest edition of Order 7110.65, Air Traffic Control, and as outlined below:

a. Review runway configurations for which DCIA will be used. (Reference Appendix 1, Table 2 and Appendix 1, Figures 1, 2, and 3)

b Determine if the airport traffic volume and/or operational complexity would benefit from the use of DCIA. What benefit is expected for the user and the facility?

c. Determine the effects of DCIA and CRDA on the airport acceptance rate (AAR).

d Determine any environmental impact. (Reference the latest edition of Order 1050.1, Policies and Procedures for Considering Environmental Impacts, and Notice 7210.360, Noise Screening Procedure for Certain Air Traffic Actions Above 3,000 feet AGL)

e. Establish procedures and conditions to be used for each adaptable airport configuration. The use of the Enhanced Target Generator (ETG) Program is recommended for this development effort. Additional support may be required of the area support facility (ASF) in the development of more than one site adapted tape. Items which must be determined include:

(1) Common points, ghost data block display boxes, and other pertinent information required to operate CRDA. (Reference Appendix 2 and the ARTS IIIA version 3.05 site program bulletin)

(2) Step down phases for transition training and proficiency. (Reference paragraph 10)

(3) Stagger distances and restrictions most appropriate for use with the airport runway pair(s). (Reference Appendix 1)

f Prepare a facility directive approved by the regional Air Traffic Division (ATD), specifying as a minimum:

- (1) Each applicable runway configuration.
- (2) Procedure to be used for each runway configuration as derived from this order.
- (3) Restrictions or exclusions deemed appropriate.
- (4) Procedure to be used in case of a glide-slope outage for either runway.
- (5) Weather minima in which the procedure may be used for each configuration if different from published minima.
- (6) Coordination requirements.
- (7) Delegated airspace changes, if any.

g. Submit proposal documents and facility procedures **pertinent** to the facility's DCIA/CRDA program to the regional ATD for approval. The regional ATD shall, after coordination with and review by the regional Flight Standards Division, send a copy of the approved proposal to the Civil Operations Program (ATM-100). ATM-100 shall coordinate a CRR with the facility, the regional ATD, the Automation Software Policy and Planning Division (ATR-200), and the Procedures Division (ATP-100). ATM-100 shall, after completion of the CRR, coordinate an operational implementation date with the regional ATD and the Air Traffic Control System Command Center (ATM-200). The proposed documents and facility procedures shall contain the following:

- (1) Each **applicable** runway configuration and/or delegated airspace revision.
- (2) Weather minima for the procedure.
- (3) Positions required to be staffed during use of this procedure.
- (4) Anticipated airport acceptance rate for each configuration.
- (5) Anticipated effect on departures.
- (6) Environmental issues and a recommended resolution of those issues.

h. Publish a letter to airmen and conduct user briefings defining local procedures to be used at least 30 days before the effective date of the DCIA procedure.

9. **REQUIREMENTS.**

a. Only straight-in approaches shall be made.

b. Aircraft shall be informed on initial contact or as soon as possible that dependent converging approaches are in use. This information may be provided through the automatic terminal information service (ATIS).

c. Aircraft on converging approaches shall be staggered in accordance with Table 1 of Appendix 1. The stagger in Table 1 shall be applied when the leading aircraft is over the landing threshold.

d. Runway separation on intersecting and nonintersecting converging runways is provided in accordance with Order 7110.65. Any adjustment required to increase the stagger to ensure runway separation shall be included in the facility directive. No aircraft shall be instructed to hold short of any intersection or intersecting runway while conducting DCIA during IFR conditions.

e. Training requirements are shown in Appendix 4, Training.

f. The suggested minimum stagger distances are described in the attached tables and appendices. A minimum of 5 nautical miles or more shall be used when the lead aircraft is a heavy.

10. **PHASE-IN CRITERIA.**

a. The facility air traffic manager shall establish a facility implementation team. (Reference Appendix 5)

b. Phase 1 is the classroom and CRDA ETG simulation phase.

c. Phase 2 is the operational phase.

Note: The Phase 2 operation shall not decrease the normal airport acceptance rate (AAR) for the given weather conditions.

(1) The following phases are recommended when the runway pair do not intersect:

(a) Phase 2A. May be conducted in weather conditions down to a ceiling of 800 feet and 2 miles visibility or the published minimums whichever are higher.

(b) Phase 2B. May be conducted in weather conditions down to the published decision height for the approach.

... . The facility air traffic manager may omit Phase 2A with approval by the regional ATD. Additional phases using intermediate weather levels between the values in Phases 2A and 2B may be established if deemed appropriate by the facility air traffic manager and approved by the regional Air Traffic Division.

(2) The following phases are required when the runways intersect:

(a) Phase 2A. The tower shall establish visual contact with either aircraft by the missed approach point (MAP). This procedure may be conducted in weather conditions down to a ceiling of 800 feet and 2 miles visibility or the published minimums for the approach, whichever are higher. Subphases may be established by the facility air traffic manager with the approval by the regional ATD.

(b) Phase 2B. Authorization from the regional ATD must be obtained by the facility prior to proceeding from Phase 2A to Phase 2B. This phase may be operated down to the published minimums for the approach.

... . Phase 2 operation shall not adversely impact the normal airport acceptance rate (AAR) for the given weather conditions.

11 **REPORTING REQUIREMENTS.** Notify ATM-100 and ATP-100, through the regional ATD, as soon as possible of any operational error/deviation, pilot deviation, TCAS resolution advisory, or near midair collision report involving DCIA operation. This requirement is in addition to the requirements for reporting and handling incidents as shown in chapter 5 of the latest edition of Order 7210.3, Facility Operation and Administration.

12. **MISCELLANEOUS.**

a. Submit any suggested changes or improvements to the software as directed by Order 6120.1, Facility Modifications to ARTS IIIA Air Traffic Maintained Software, case file/NAS change proposal system.

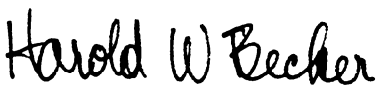
b. Submit changes, improvements, and/or additional uses of the DCIA procedures or CRDA through the regional Air Traffic Division to ATM-100. ATM-100 will coordinate with ATP-100 and ATR-200.

(1) The Terminal Air Traffic **Control Automation** (TATCA) Program Office, ARD-40, will provide support for any additional or future analysis of specific runway configurations.

(2) Submit requests for additional runway configuration analyses to ATM-100 through the regional ATD.

(3) Runway configurations providing capacity benefits shall be processed in accordance with paragraph 7.

c. Program errors or faults should be submitted through the program trouble report (PTR) system.


for L. Lane Speck
Program Director for Air Traffic
Rules and Procedures

**APPENDIX 1. DEPENDENT CONVERGING INSTRUMENT APPROACHES (DCIA)
PROCEDURE TABLE**

1. **PURPOSE.** This appendix establishes the DCIA procedure to be used for applicable runway configurations.

2. **USING THE DCIA PROCEDURE TABLE.** The DCIA procedure can be run safely under a range of conditions and runway configurations. This range is defined in Table 1. The following lists the steps necessary to be taken by a facility to use the table.

a. Identify all the runway configurations for which the facility may use the DCIA procedure. Follow steps b through f below for each runway configuration.

b. Determine the common point for the runway configuration. Determine the distances from each runway threshold to the common point (See Figures 2 and 3). When coordinating with the appropriate Flight Inspection Area Office (FIAO) in the development of published missed approach procedures, emphasis shall be placed on establishing positive course guidance throughout the missed approach procedure, including the common point.

c. Determine the decision heights for each runway and select the larger of the two decision heights.

d. Go to Table 1A if the decision height determined in step c is 250 feet or less. Go to Table 1B if the decision height determined in step c is between 251 feet and 500 feet. Go to Table 1C if the decision height determined in step c is between 501 feet and 700 feet.

e. Go to the table selected in Step d and the row that covers the runway configuration (i.e., the combination of threshold to intersection distances determined in step b) to find the DCIA procedure to use for this configuration. The procedure is determined by the stagger value required and certain speed restrictions and/or exclusions. All of the options provide the required level of safety. The tradeoff is between the potential throughput and the severity of the restrictions. Select the option that is most operationally suitable if several options are identified. The speeds referenced in this table are indicated final approach airspeeds. Guidance concerning "restricted" and "excepted" aircraft is given explanations following and in Appendix 1, Tables 1A, 1B, and 1C.

f Determine the decision heights for each runway when the glide'slope is out of service. Find the larger of the two values. Repeat steps d and e to determine the DCIA procedure for this runway configuration when either glide slope is out of service.

3. EXAMPLE FOR USE OF TABLES.

The use of the table for determining the DCIA procedure for each candidate runway configuration is illustrated with an example for Boston.

Boston has three eligible runway configurations. They are Runway 33L/4R, Runway 15R/4R, and Runway 27/22L. There is an instrument landing system (ILS) or **localizer** (LOC) on each of the paired runways and the prescribed missed approach procedures meet the criteria described in this order. The next step is to determine the runway lengths to the common point for each configuration and the decision heights (DH) when both ILS's are fully available (called "Full ILS" here) and when the glide slopes may be out of service. The next step is to go to Table 1A, 1B, or 1C, depending upon the DH, and find the applicable row.

Airport	Runways	Threshold to intersection distance (ft)		DH (ft) (Larger of the two DH for the two runways)		DCIA Rule (Table-Row)	
		Short	Long	ILS	LOC	Full ILS	GS Out
BOS	4R/33L	4144	5201	200	463	1A-21	IB-19
BOS	15R/4R	3998	4144	250	562	1A-20	1C-19
BOS	27/22L	5979	6744	443	484	IB-25	IB-25

Consider configuration 4R/33L. The decision heights for the two runways for full ILS approaches are both 200 feet. The runway to intersection distances are 4144 and 5201 feet respectively. The DCIA rule for this configuration is found in Row 21 in Table 1A (i.e., 1A-21). Row 1A-21 provides seven options from which to choose. The facility might choose option number 3 which allows a 2 mi. and 5 mi. stagger operation with the aircraft 90 knots or less and 160 knots or greater excepted. The simplest method to handle aircraft excepted from the DCIA stagger rule is to miss a DCIA slot as described at the end of this appendix.

The 2- and 5-stagger operation requires that aircraft should be staggered by 2 nautical miles (NM) when the leading aircraft is a **nonheavy** and by 5 NM when the leading aircraft is a heavy. Staggered means that the trailing aircraft is either 2 NM or 5 NM farther from the common point than the leading aircraft when the leading aircraft reaches the threshold.

NOTE: The nonheavy criteria provided in Appendix 1 will ensure that the leading nonheavy aircraft will pass the common point with 1 NM or greater separation from the trailing aircraft if both aircraft execute missed approaches. The heavy criteria will ensure that a leading heavy aircraft will pass the common point ahead of a nonheavy trailing aircraft with 76 seconds or more separation before the trailing aircraft crosses the common point.

The decision heights for the two runways would be 422 and 463 feet respectively if a glide slope on either Runway 4R or 33L were out of service. The applicable rule would be found in Table IB. The runway to intersection distances are, as before, 4144 and 5201 feet respectively. The applicable procedure would be found in row 19. Row IB-19 provides 4 options. The facility may determine that the first option which permits a 2.5- and 5-stagger operation and "excepts" aircraft with final approach speeds of 80 knots (kts) or less and 160 kts or greater from the 2.5 and 5 rule would always be used.

The facility could identify aircraft groups by types that reflect the appropriate indicated final approach airspeeds. Suppose, for BOS, aircraft with 90 kts or less final approach speeds include all single engine general aviation aircraft and aircraft with 160 kts or greater final approach speeds include all military fighter type aircraft.

The facility directive would state that the stagger operation for Runways 4R/33L would be conducted with a 2- and 5-stagger rule and, when a single engine general aviation aircraft is the leading aircraft or a fighter type aircraft is the trailing aircraft, that a DCIA slot should be missed. The DCIA operation would be run with a 2.5 and 5 rule if the glide slope to either runway were out of service.

The facility would repeat the process for the other two configurations.

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What does restriction of an aircraft speed group mean?

Table 1 lists restrictions in reference to final approach speeds and restricts the slower aircraft to the runway with the shorter threshold to intersection distance. This procedure is used to ensure separation is maintained if the slower leading aircraft and a faster trailing aircraft both execute a missed approach. The slower leading aircraft executing an approach to the runway with the shorter threshold to intersection distance ensures that the slower aircraft will cross the common point faster in the case of a dual missed approach. A restricted aircraft landing on the runway with the longer threshold to intersection distance can be safely followed on the other runway by any aircraft with a slower final approach airspeed.

Restricting an aircraft to the runway with the shorter threshold to intersection distance means "assign an aircraft with the specified approach speed or less to the runway with the shorter threshold to intersection distance. The faster of two slow aircraft sequenced together can be assigned to the runway with the longer threshold to intersection as long as the trailing aircraft on the runway with the shorter intersection distance has speed control applied to be the slower to land."

What does "exception" of an aircraft speed group mean?

Certain aircraft speed groups are exceptions from the reduced DCIA separations in Table 1. Those exception aircraft must be sequenced by any one of the following methods:

Method 1: Miss or skip an appropriate DCIA slot on the other approach when the excepted aircraft is involved. The slot to be missed is the "trailing" slot on the other approach when the aircraft involved is slow (120 kts or less) and a leading slot on the other approach when the aircraft involved is fast (160 kts or greater).

Method 2: The DCIA slot can be missed more efficiently by sequencing the excepted aircraft in trail. An excepted aircraft which is slow (120 kts or less) should be sequenced so that the next aircraft to land is landing on the same runway. A fast aircraft (160 kts or greater) should be sequenced so that the previous aircraft lands on the same runway.

Method 3: In most cases a DCIA slot will not be required to be missed to accommodate excepted aircraft. The spacing required by the DCIA operation can be assured by simply providing an extra stagger as identified in the last column of Table 1. The restricting of a certain speed group on the shorter intersection distance runway must be observed. Provide the slightly larger stagger identified in the last column in Table 1, when the excepted aircraft is a slow leading or a fast trailing aircraft.

For example, suppose the applicable procedure was line 3 in Table 1A. The DCIA procedure for this geometry requires a stagger of 2 and 5 and excludes aircraft of 80 kts or less and those of 160 kts or greater from the 2 and 5 rule. The last column of Table 1A requires that when either of these types of aircraft are involved a stagger of 2.5 NM is used to provide adequate DCIA separation.

3. APPLICATION TO AIRPORTS. Table 2 provides a list of selected ARTS IIIA sites which have converging runways and the minimum instrumentation to support the DCIA procedure. A key to the procedure in Table 1 which is applicable to those sites is also given in Table 2.

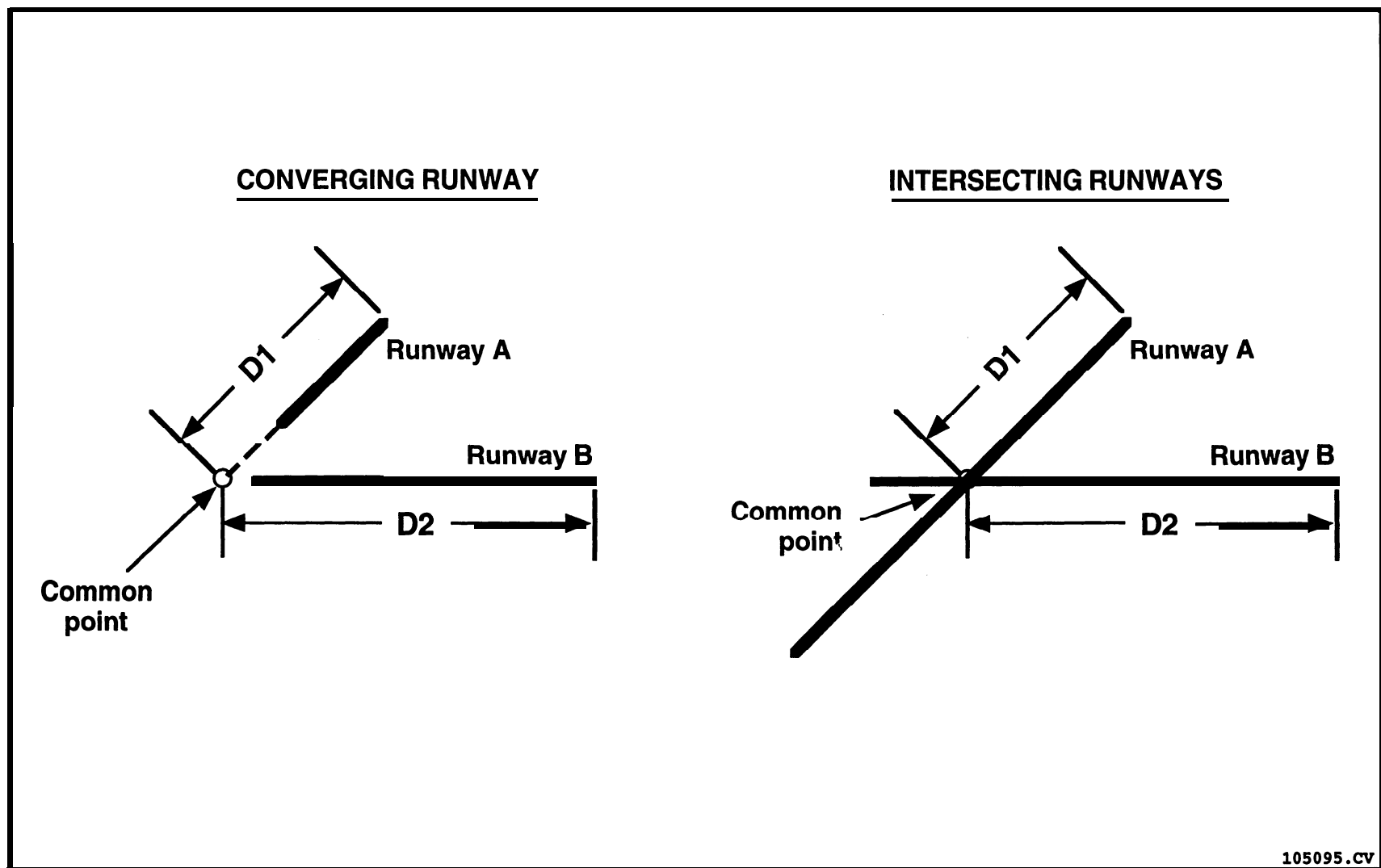


FIGURE 1
DISTANCES FROM THRESHOLD TO INTERSECTION

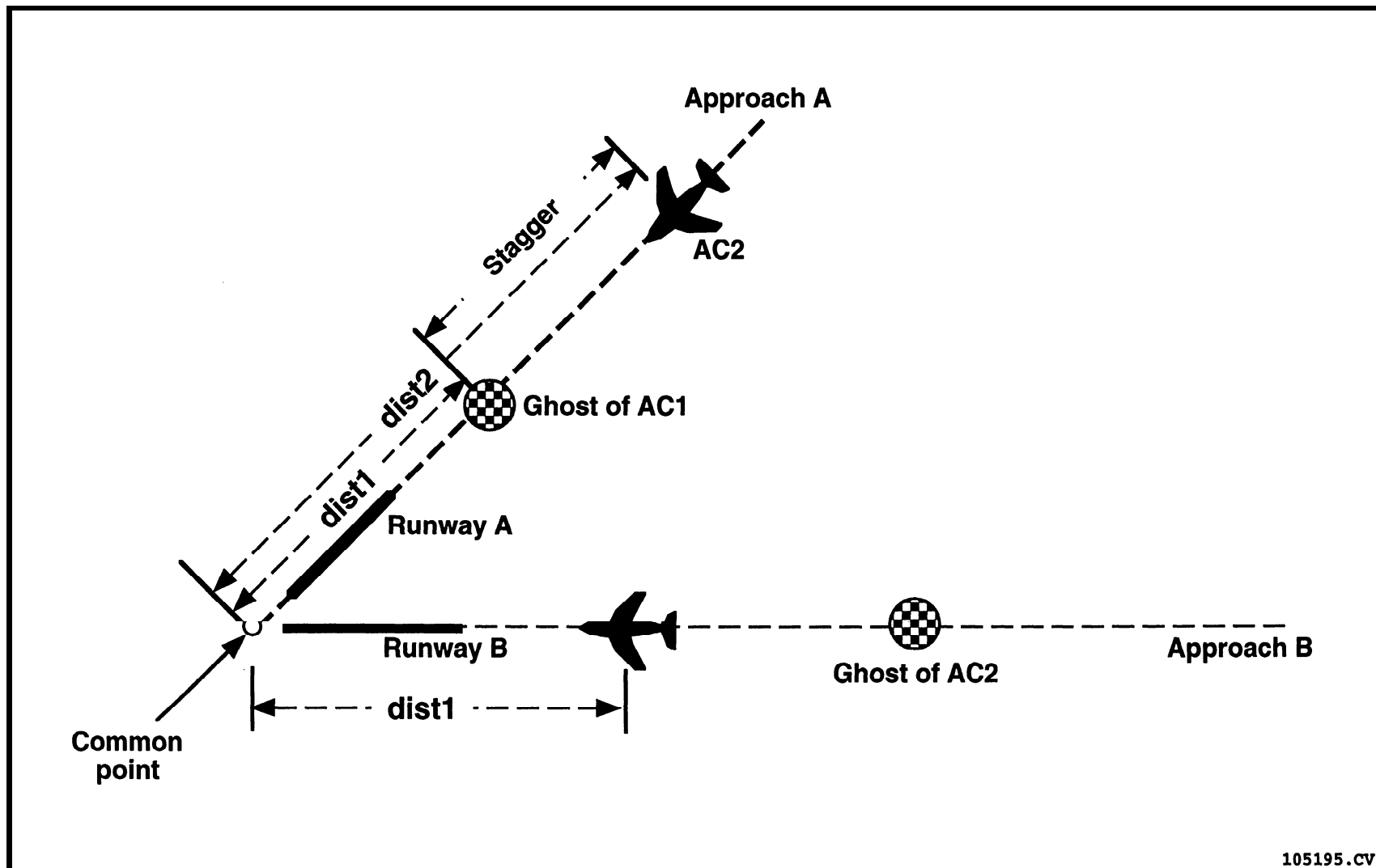


FIGURE 2
GHOST TARGET AND STAGGER

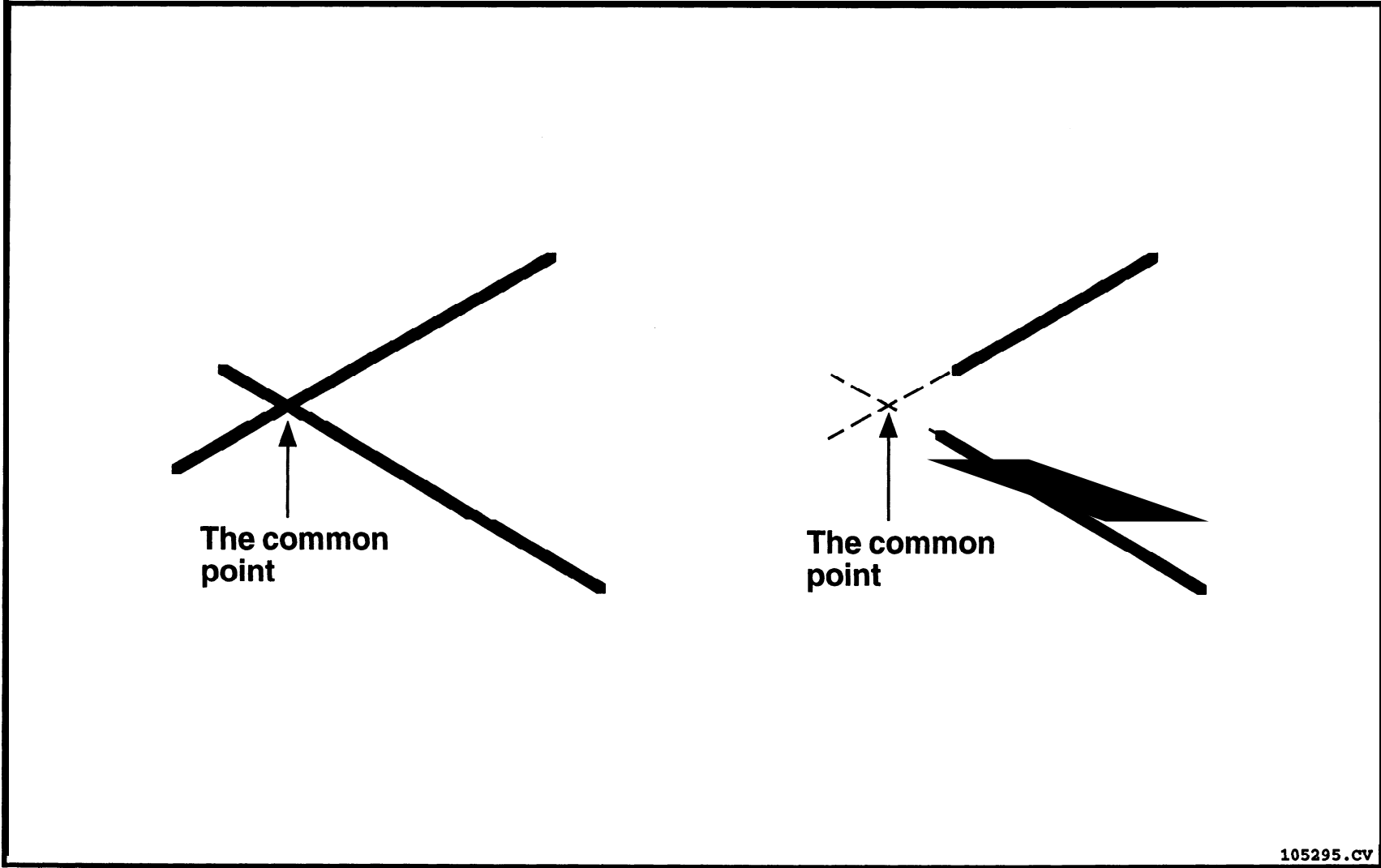




FIGURE 3
THE COMMON POINT

Table 1-A. DCIA Procedure for Decision Heights of 250 ft or Less

The stagger rule **(x,y)** means a minimum of x nmi stagger behind a non-heavy aircraft and y nmi stagger behind a heavy aircraft when the leading aircraft is at the runway threshold. For example, **(2,5)** means 2 nmi stagger behind a non-heavy aircraft and 5 nmi stagger behind a heavy aircraft.

	Shorter distance from threshold to intersection	Longer distance from threshold to intersection	DCIA Procedure Stagger aircraft to converging runways using indicated stagger distances; restrictions noted	Stagger rule for "Excepted" aircraft
1	Up to 2600 ft	Up to 2600 ft	● No restrictions; stagger rule is (2,5)	NA
2	Up to 2600 ft	2601 ft to 3200 ft	<ul style="list-style-type: none"> ● Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) or <ul style="list-style-type: none"> ● Except 160 kt or greater aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> ● No restrictions; stagger rule is (2.5,5) 	NA (2.5,5) or skip a slot NA
3	Up to 2600 ft	3201 ft to 4500 ft	<ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) or <ul style="list-style-type: none"> ● Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> ● Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) or <ul style="list-style-type: none"> ● Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5) or	NA (2.5,5) or skip a slot NA NA

			<ul style="list-style-type: none"> Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) 	NA
			or	
			<ul style="list-style-type: none"> No restrictions; stagger rule is (3,5) 	NA
4	Up to 2600 ft	4501 ft to 5900 ft	<ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) 	NA
			or	
			<ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5) 	(2.5,5) or skip a slot
			or	
			<ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) 	NA
			or	
			<ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5) 	NA
			or	
			<ul style="list-style-type: none"> Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) 	NA
			or	
			<ul style="list-style-type: none"> Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) 	NA
			or	
			<ul style="list-style-type: none"> Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5) 	NA

5	Up to 2600 ft	5901 A to 7500 ft	<ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) 	NA
			 <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5) 	(2.5,5) or skip a slot
			 <ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) 	NA
			or <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5) 	NA
			or <ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) 	NA
6	Up to 2600 ft	7501 ft to 9700 ft	or <ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5) 	NA
			<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5) 	(2.5,6) or skip a slot

			<ul style="list-style-type: none"> • Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> • Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) <p>or</p> <ul style="list-style-type: none"> • Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,6) <p>or</p> <ul style="list-style-type: none"> • Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,6) <p>or</p> <ul style="list-style-type: none"> • Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6) 	<p>(2.5,6) or skip a slot</p> <p>(3,6) or skip a slot</p> <p>(2.5,6) or skip a slot</p> <p>NA</p> <p>NA</p>
7	Up to 2600 ft	9701 ft to 10600 ft	<ul style="list-style-type: none"> • Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5) <p>or</p> <ul style="list-style-type: none"> • Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> • Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) <p>or</p>	<p>(2.5,6) or skip a slot</p> <p>(2.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p>

			<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,6) 	NA
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6) 	NA
8	Up to 2600 ft	10601 ft to 12200 ft	<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5) 	(3,6) or skip a slot
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,6) 	NA
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) 	(3.5,6) or skip a slot
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,6) 	NA
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6) 	NA
9	Up to 2600 A	12201 ft to 13900 ft	<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,6) 	(3,6) or skip a slot
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6) 	NA

10	Up to 2600 ft	13901 ft to 17600 ft	<ul style="list-style-type: none"> Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,6) 	(3,7) or skip a slot
11	Up to 2600 ft	17601 ft to 19700 A	<ul style="list-style-type: none"> Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,6) 	(3,7) or skip a slot
12	2601 ft to 3400 ft	Up to 3400 ft	<ul style="list-style-type: none"> Except 80 kt or less aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> No restrictions; stagger rule is (2.5,5) 	(2.5,5) or skip a slot NA
13	2601 ft to 3400 ft	3401 ft to 4000 ft	<ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> Do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5) or <ul style="list-style-type: none"> Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) or <ul style="list-style-type: none"> No restrictions; stagger rule is (3,5) 	(2.5,5) or skip a slot (3,5) or skip a slot NA NA NA
14	2601 ft to 3400 ft	4001 ft to 5800 ft	<ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2,5) or	(2.5,5) or skip a slot

			<ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5) or <ul style="list-style-type: none"> ● Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) or <ul style="list-style-type: none"> ● Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5) or <ul style="list-style-type: none"> ● Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) 	<p>(2.5,5) or skip a slot</p> <p>NA</p> <p>NA</p> <p>NA</p> <p>NA</p>
15	2601 A to 3400 ft	5801 A to 7500 ft	<ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5) or <ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.53) or	<p>(2.5,5) or skip a slot</p> <p>NA</p> <p>NA</p>

			<ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5) 	NA
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) 	NA
16	2601 ft to 3400 ft	7501 ft to 9700 ft	<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) 	(3,6) or skip a slot
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5) 	(3,6) or skip a slot
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) 	(3,6) or skip a slot
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6) 	NA
			<p>or</p> <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6) 	NA
17	2601 A to 3400 ft	9701 ft to 12100 A	<ul style="list-style-type: none"> ● Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) 	(3,6) or skip a slot
			or	

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			<ul style="list-style-type: none"> • Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) <p>or</p> <ul style="list-style-type: none"> • Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> • No restrictions; stagger rule is (3,5) 	<p>(3,5) or skip a slot</p> <p>NA</p> <p>NA</p>
21	3401 ft to 4400 ft	4401 ft to 5800 ft	<ul style="list-style-type: none"> • Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (2,5) <p>or</p> <ul style="list-style-type: none"> • Except 90 kt or less aircraft and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) <p>or</p> <ul style="list-style-type: none"> • Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) <p>or</p> <ul style="list-style-type: none"> • Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> • Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> • Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5) <p>or</p>	<p>(3,5) or skip a slot</p> <p>(3.5,5) or skip a slot</p> <p>(3.5,5) or skip a slot</p> <p>NA</p> <p>NA</p> <p>NA</p>

			<ul style="list-style-type: none"> Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) 	NA
22	3401 A to 4400 ft	5801 ft to 7400 ft	<ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) or <ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) or <ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5) or <ul style="list-style-type: none"> Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) 	(3,5) or skip a slot NA NA NA NA
23	3401 ft to 4400 ft	7401 ft to 9600 ft	<ul style="list-style-type: none"> Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) or <ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) or	(3,6) or skip a slot (3,6) or skip a slot

			<ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) <p>or</p> <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6) <p>or</p> <ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6) 	<p>(3.5,6) or skip a slot</p> <p>(3,6) or skip a slot</p> <p>NA</p>
24	3401 ft to 4400 ft	9601 ft to 12200 ft	<ul style="list-style-type: none"> ● Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) <p>or</p> <ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) <p>or</p> <ul style="list-style-type: none"> ● Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6) <p>or</p>	<p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p>

			<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6) 	NA
25	3401 ft to 4400 ft	12201 ft to 13900 A	<ul style="list-style-type: none"> ● Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5,6) <p>or</p> <ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6) <p>or</p> <ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6) 	<p>(3,5,6) or skip a slot</p> <p>NA</p> <p>NA</p>
26	3401 ft to 4400 ft	13901 ft to 17800 ft	<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,6) 	(3,5,7) or skip a slot
27	4401 A to 5700 ft	Up to 5700 ft	<ul style="list-style-type: none"> ● Except 90 kt or less aircraft and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) <p>or</p> <ul style="list-style-type: none"> ● Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) <p>or</p> <ul style="list-style-type: none"> ● Except 80 kt or less aircraft and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5,5) 	<p>(3,5,5) or skip a slot</p> <p>(3,5,5) or skip a slot</p> <p>(3,5,5) or skip a slot</p>

			<ul style="list-style-type: none"> Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) 	NA
28	4401 ft to 5700 ft	5701 ft to 6500 A	<ul style="list-style-type: none"> Except 80 kt or less aircraft and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) 	<p>(4,5) or skip a slot</p> <p>NA</p>
29	4401 ft to 5700 ft	6501 ft to 7200 ft	<ul style="list-style-type: none"> Except 80 kt or less aircraft and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) 	<p>(4,5) or skip a slot</p> <p>NA</p>
30	4401 ft to 5700 ft	7201 ft to 12100 ft	<ul style="list-style-type: none"> Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) <p>or</p> <ul style="list-style-type: none"> Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6) <p>or</p>	<p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p>

			<ul style="list-style-type: none"> ● Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft with 160 kt or greater aircraft; stagger rule is (3,6) 	NA
31	4401 ft to 5700 ft	12101 ft to 13800 ft	<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,6) <p>or</p> <ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6) 	<p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p>
32	4401 ft to 5700 ft	13801 A to 17800 ft	<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6) 	(4,7) or skip a slot
33	5701 ft to 6400 ft	Up to 6400 ft	<ul style="list-style-type: none"> ● Except 80 kt or less aircraft and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> ● Except 80 kt or less aircraft; stagger rule is (3,5) 	<p>(4,5) or skip a slot</p> <p>(4,5) or skip a slot</p>
34	5701 ft to 6400 ft	6401 ft to 6900 ft	<ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> ● Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft; stagger rule is (3,5) <p>or</p>	<p>(4,5) or skip a slot</p> <p>(4,5) or skip a slot</p>

			<ul style="list-style-type: none"> Do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,5) 	NA
35	5701 ft to 6400 ft	6901 A to 10800 A	<ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) <p>or</p> <ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3.6) 	<p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p>
36	5701 ft to 6400 ft	10801 ft to 12100 ft	<ul style="list-style-type: none"> Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) <p>or</p> <ul style="list-style-type: none"> Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (2.5,6) <p>or</p>	<p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p>

			<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6) 	(4,6) or skip a slot
37	5701 ft to 6400 ft	12101 ft to 13800 A	<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,6) <p>or</p> <ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6) 	<p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p>
38	5701 ft to 6400 ft	13801 ft to 17800 ft	<ul style="list-style-type: none"> ● Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6) 	(4,5,7) or skip a slot
39	6401 ft to 8300 ft	Up to 8300 ft	<ul style="list-style-type: none"> ● Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) <p>or</p> <ul style="list-style-type: none"> ● Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) <p>or</p> <ul style="list-style-type: none"> ● Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (2.5,6) <p>or</p> <ul style="list-style-type: none"> ● Do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6) 	<p>(4,5,6) or skip a slot</p> <p>(4,5,6) or skip a slot</p> <p>(4,5,6) or skip a slot</p> <p>(4,5,6) or skip a slot</p>

40	6401 A to 8300 ft	8301 ft to 8700 ft	<ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) <p>01•</p> <ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) <p>02•</p> <ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (2.5,6) <p>or</p> <ul style="list-style-type: none"> Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6) 	<p>(4.5,6) or skip a slot</p> <p>(4.5,6) or skip a slot</p> <p>(4.5,6) or skip a slot</p> <p>(4.5,6) or skip a slot</p>
41	6401 ft to 8300 ft	8701 ft to 11100 ft	<ul style="list-style-type: none"> Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (3,6) 	(5.5,6) or skip a slot
42	6401 A to 8300 ft	11101 ft to 14000 ft	<ul style="list-style-type: none"> Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6) 	(5,7) or skip a slot
43	6401 ft to 8300 ft	14001 ft to 17700 ft	<ul style="list-style-type: none"> Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6) 	(5,7) or skip a slot
44	8301 ft to 10800 ft	Up to 10800 ft	<ul style="list-style-type: none"> Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (35) <p>or</p>	(5.5,6) or skip a slot

			<ul style="list-style-type: none">● Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (3,6)	(5,5,6) or skip a slot
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Table 1-B. DCIA Procedure for Decision Heights Between 251 ft and 500 ft

The stagger rule (x,y) means a minimum of x nmi stagger behind a non-heavy aircraft and y nmi stagger behind a heavy aircraft when the leading aircraft is at the runway threshold. For example, (2,5) means 2 nmi stagger behind a non-heavy aircraft and 5 nmi stagger behind a heavy aircraft.

	Shorter distance from threshold to intersection	Longer distance from threshold to intersection	DCIA Procedure Stagger aircraft to converging runways using indicated stagger distance; restrictions noted	Stagger rule for "Excepted" aircraft
1	up to 2100 ft	up to 2100 ft	1 No restrictions; stagger rule is (2,5)	NA
2	up to 2100 ft	2101 ft to 2800 ft	1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) or 1 Except 80 kt or less aircraft; stagger rule is (2,5) or 1 Except 160 kt or greater aircraft; stagger rule is (2,5) or 1 No restrictions; stagger rule is (2.5,5)	NA (2.5,5) or miss a slot (2.5,5) or miss a slot NA
3	up to 2100 ft	2801 ft to 3700 ft	1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft; stagger rule is (2,5) or 1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5) or 1 No restrictions; stagger rule is (3,5)	NA (2.5,5) or skip a slot (2.5,5) or skip a slot NA NA

4	up to 2100 ft	3701 ft to 4900 ft	<p>I Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5)</p> <p>or</p> <p>I Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>I Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft; stagger rule is (2,5)</p> <p>or</p> <p>I Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5)</p> <p>or</p> <p>I Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5)</p> <p>or.</p> <p>I Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5)</p>	<p>NA</p> <p>(2.5,5) or skip a slot</p> <p>(2.5,5) or skip a slot</p> <p>NA</p> <p>NA</p> <p>NA</p>
5	up to 2100 ft	4901 ft to 5900 ft	<p>I Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5)</p> <p>or</p> <p>I Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft; stagger rule is (275)</p> <p>or</p> <p>I Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p>	<p>NA</p> <p>(2.5,5) or skip a slot</p> <p>(2.5,5) or skip a slot</p>

			1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5) or 1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5) or 1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5) or 1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5)	NA (3,5) or skip a slot NA NA
6	up to 2100 ft	5901 ft to 7000 ft	1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5) or 1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 120 kt or less aircraft with 160 kt or greater aircraft; stagger rule is (3,5) or 1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,6) or	(2.5,5) or skip a slot (3,5) or skip a slot NA (3.5,5) or skip a slot NA

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			1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)	NA NA
8	Up to 2100 ft	8901 ft to 11200 ft	1 Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5) or 1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5) or 1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6) or 1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)	(2.5,5) or skip a slot (3,6) or skip a slot (3.5,6) or skip a slot NA NA
9	Up to 2100 ft	11201 ft to 13100 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,6) or	(3,6) or skip a slot

			<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>NA</p> <p>NA</p>
10	Up to 2100 ft	13101 ft to 17000 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,6)</p>	(3.5,7) or skip a slot
11	2101 ft to 3800 ft	Up to 3800 ft	<p>1 Except 80 kt or less and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Except 80 kt or less aircraft and do not pair 100 kt or less aircraft with 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Do not pair 80 kt or less aircraft with 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 No restrictions; stagger rule is (3,5)</p>	<p>(3,5) or skip a slot</p> <p>(3,5) or skip a slot</p> <p>NA</p> <p>NA</p>
12	2101 ft to 3800 ft	3801 ft to 4100 ft	<p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5)</p> <p>or</p> <p>1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5)</p> <p>or</p> <p>1 No restrictions; stagger rule is (3,5)</p>	<p>(3,5) or skip a slot</p> <p>NA</p> <p>NA</p> <p>NA</p>

1 3	2101 ft to 3800 ft	4101 ft to 6700 ft	1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5)	(3,6) or skip a slot
			or	
			1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5)	(3,6) or skip a slot
			or	
			1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)	(3.5,6) or skip a slot
			or	
1 4	2101 ft to 3800 ft	6701 ft to 8600 ft	1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6)	NA
			or	
			1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6)	NA
			or	
			1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)	NA
			or	
1 4	2101 ft to 3800 ft	6701 ft to 8600 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5)	(3,6) or skip a slot
			or	
1 4	2101 ft to 3800 ft	6701 ft to 8600 ft	1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)	(3,6) or skip a slot
			or	

			<p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,6)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft with 160 kt or greater aircraft; stagger rule is (3,6)</p>	<p>(3.5,6) or skip a slot</p> <p>(3,6) or skip a slot</p> <p>NA</p> <p>NA</p>
15	2101 A to 3800 ft	8601 ft to 11000 ft	<p>1 Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p>	<p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p>

			Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6) or Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft with 160 kt or greater aircraft; stagger rule is (3,6)	NA NA
1 6	2101 ft to 3800 ft	11001 ft to 12900 ft	Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,6) or Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)	(3.5,6) or skip a slot NA
1 7	2101 ft to 3800 A	12901 ft to 16900 ft	Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,6)	(3.5,7) or skip a slot
1 8	3801 ft to 5000 ft	up to 5000 ft	Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (2,5) or Do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2.5,5) or Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5)	(3.5,5) or skip a slot (3.5,5) or skip a slot NA
1 9	3801 ft to 5000 ft	5001 ft to 5900 ft	Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) or	(4,6) or skip a slot

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			<p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3.5,6) or skip a slot</p> <p>(4,6) or skip a slot</p> <p>NA</p>
20	3801 ft to 5000 ft	5901 ft to 7900 ft	<p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3.5,6) or skip a slot</p> <p>(4,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>NA</p>
21	3801 ft to 5000 ft	7901 ft to 9600 ft	<p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p>	<p>(4,6) or skip a slot</p>

			<p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(4,6) or skip a slot</p> <p>NA</p>
2 2	3801 ft to 5000 ft	9601 ft to 10800 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(4,6) or skip a slot</p> <p>(4,6) or skip a slot</p> <p>NA</p>
2 3	3801 ft to 5000 ft	10801 ft to 12700 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6)</p>	<p>(4,7) or skip a slot</p> <p>(4,7) or skip a slot</p>
2 4	3801 ft to 5000 ft	12701 ft to 16700 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6)</p>	<p>(4,7) or skip a slot</p>

2 5	5001 ft to 7400 ft	Up to 7400 ft	<p>1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6)</p>	<p>(4.5,6) or skip a slot</p> <p>(4.5,6) or skip a slot</p> <p>(4.5,6) or skip a slot</p> <p>(4.5,6) or skip a slot</p>
2 6	5001 ft to 7400 ft	7401 ft to 10200 ft	<p>1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Do not pair 110 kt or less aircraft with 160 kt or greater aircraft and except 90 kt or less aircraft; stagger rule is (3,6)</p>	<p>(5.5,6) or skip a slot</p> <p>(5.5,6) or skip a slot</p>
2 7	5001 ft to 7400 ft	10201 ft to 13000 ft	1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6)	(5,7) or skip a slot
2 8	5001 ft to 7400 ft	13001 ft to 16300 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6)	(5,7) or skip a slot
2 9	7401 ft to 9700 ft	up to 9700 ft	<p>1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (3,6)</p>	<p>(5.5,6) or skip a slot</p> <p>(5.5,6) or skip a slot</p>

Table 1-C. DCIA Procedure for Decision Heights Between 501 ft and 700 ft

The stagger **rule (x,y)** means a minimum of x nmi stagger behind a non-heavy aircraft and y nmi stagger behind a heavy aircraft when the leading **aircraft** is at the runway threshold. For example, **(2,5)** means 2 nmi stagger behind a non-heavy aircraft and 5 nmi stagger behind a heavy aircraft.

	Shorter distance from threshold to intersection	Longer distance from threshold to intersection	DCIA Procedure Stagger aircraft to converging runways using indicated stagger distance; restrictions noted	Stagger rule for “Excepted” aircraft
1	Up to 1600 ft	Up to 1600 ft	1 No restrictions; stagger rule is (2,5)	NA
2	Up to 1600 ft	1601 ft to 2100 A	1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) or 1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance ; stagger rule is (2,5) or 1 No restrictions; stagger rule is (2.5,5)	NA NA NA
3	Up to 1600 ft	2101 ft to 2800 ft	1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance ; stagger rule is (2,5) or 1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5) or 1 No restrictions; stagger rule is (2.5,5)	NA NA NA
4	Up to 1600 ft	2801 ft to 3700 ft	1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance ; stagger rule is (2,5) or	NA

			<p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5)</p> <p>or</p> <p>1 No restrictions; stagger rule is (3,5)</p>	<p>NA</p> <p>NA</p> <p>NA</p> <p>NA</p>
5	Up to 1600 ft	3701 ft to 4800 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5)</p> <p>or</p>	<p>NA</p> <p>NA</p> <p>NA</p> <p>NA</p>

			<p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance; stagger rule is (3,5)</p> <p>or</p> <p>1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft with 160 kt or greater; stagger rule is (2,6)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>NA</p> <p>NA</p> <p>NA</p> <p>NA</p> <p>NA</p>
6	Up to 1600 ft	4801 ft to 6100 ft	<p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p>	<p>(2.5,6) or skip a slot</p> <p>(3,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p>

			<p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>NA</p> <p>NA</p>
7	Up to 1600 ft	6101 ft to 7900 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(2.5,6) or skip a slot</p> <p>(3,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>NA</p> <p>NA</p>

8	Up to 1600 ft	7901 ft to 9900 ft	<p>1 Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(2.5,6) or skip a slot</p> <p>(3,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>NA</p>
9	Up to 1600 ft	9901 ft to 12100 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2,5,6)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3,6) or skip a slot</p> <p>NA</p>
10	Up to 1600 ft	12 101 ft to 16000 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,6)</p>	<p>(3.5,7) or skip a slot</p>
11	1601 ft to 3200 ft	Up to 3200 ft	<p>1 Do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2,5)</p> <p>or</p>	<p>(3,5) or skip a slot</p>

			<p>1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,5)</p> <p>or</p> <p>1 No restrictions; stagger rule is (3,5)</p>	<p>NA</p> <p>NA</p>
1 2	1601 ft to 3200 ft	3201 ft to 4300 ft	<p>1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3.5,6) or skip a slot</p> <p>(3,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>NA</p> <p>NA</p>
1 3	1601 ft to 3200 ft	4301 ft to 5700 ft	<p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p>	<p>(3,6) or skip a slot</p> <p>(3,6) or skip a slot</p>

			<p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3,5,6) or skip a slot</p> <p>NA</p> <p>NA</p>
1 4	1601 ft to 3200 A	5701 ft to 7400 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (2.5,6)</p> <p>or</p>	<p>(3,6) or skip a slot</p> <p>(3,6) or skip a slot</p> <p>(4,6) or skip a slot</p> <p>NA</p>

			1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)	NA
1 5	1601 A to 3200 A	7401 ft to 9500 ft	1 Restrict 120 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) or 1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (2.5,5) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)	(3.5,6) or skip a slot (3.5,6) or skip a slot (3.5,6) or skip a slot NA
1 6	1601 ft to 3200 ft	9501 ft to 11800 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,6)	(3.5,7) or skip a slot
1 7	1601 ft to 3200 ft	11801 ft to 15700 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,6)	(4,7) or skip a slot
1 8	3201 ft to 4100 ft	up to 4100 ft	1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5) or	(3.5,6) or skip a slot

			<p>1 Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Do not pair 90 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>NA</p>
19	3201 ft to 4100 ft	4101 ft to 4800 ft	<p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2,5)</p> <p>or</p> <p>1 Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>NA</p>
20	3201 ft to 4100 ft	4801 ft to 7000 ft	<p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p>	<p>(3.5,6) or skip a slot</p>

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			<p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2.5,6)</p> <p>or</p> <p>1 Restrict 80 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>NA</p>
2 1	3201 ft to 4100 ft	7001 ft to 9100 ft	<p>1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,5)</p> <p>or</p> <p>1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)</p>	<p>(3.5,6) or skip a slot</p> <p>(3.5,6) or skip a slot</p> <p>NA</p>
2 2	3201 ft to 4100 ft	9101 ft to 11500 ft	<p>1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,6)</p> <p>or</p>	<p>(4,7) or skip a slot</p>

			1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 160 kt or greater aircraft; stagger rule is (3,6)	(5,7) or skip a slot
2 3	3201 ft to 4100 ft	11501 ft to 15500 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6)	(4,7) or skip a slot
2 4	4101 ft to 5000 ft	up to 5000 ft	1 Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) or 1 Except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (2.5,6) or 1 Do not pair 80 kt or less aircraft leading with 160 kt or greater aircraft trailing; stagger rule is (3,6)	(3.5,6) or skip a slot (3.5,6) or skip a slot (3.5,6) or skip a slot NA
2 5	4101 A to 5000 ft	5001 ft to 6800 ft	1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) or 1 Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (2.5,6) or 1 Do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6)	(4.5,6) or skip a slot (4.5,6) or skip a slot (4.5,6) or skip a slot (4.5,6) or skip a slot

2 6	4101 ft to 5000 A	6801 ft to 8900 ft	1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) or	(4,6) or skip a slot
			1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6)	(4,6) or skip a slot (4,6) or skip a slot
2 7	4101 ft to 5000 ft	8901 ft to 9100 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Restrict 90 kt or less aircraft to runway with shorter threshold to intersection distance and do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6)	(4,6) or skip a slot (4,6) or skip a slot (4,6) or skip a slot

2 8	4101 ft to 5000 ft	9101 ft to 11300 A	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,6) or 1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6)	(4,7) or skip a slot (4,7) or skip a slot
2 9	4101 ft to 5000 ft	11301 A to 15300 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6)	(4.5,7) or skip a slot
3 0	5001 ft to 6400 ft	Up to 6400 ft	1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (2.5,5) or 1 Except 80 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (2.5,6) or 1 Do not pair 100 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 80 kt or less aircraft; stagger rule is (3,6)	(4.5,6) or skip a slot (4.5,6) or skip a slot (4.5,6) or skip a slot (4.5,6) or skip a slot
3 1	5001 ft to 6400 ft	6401 ft to 8700 ft	1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (3,6)	(5,6) or skip a slot (5,6) or skip a slot

3 2	5001 A to 6400 ft	8701 ft to 15000 ft	1 Restrict 110 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6)	(5,7) or skip a slot
3 3	6401 ft to 8100 ft	Up to 8100 ft	1 Except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,5) or 1 Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (3,6)	(5,6) or skip a slot (5,6) or skip a slot
3 4	6401 A to 8100 ft	8101 ft to 10300 ft	1 Restrict 100 kt or less aircraft to runway with shorter threshold to intersection distance and except 90 kt or less aircraft and except 160 kt or greater aircraft; stagger rule is (3,6)	(5,7) or skip a slot
3 5	8101 A to 8600 ft	up to 8600 ft	1 Do not pair 110 kt or less aircraft leading with 160 kt or greater aircraft trailing and except 90 kt or less aircraft; stagger rule is (3,6)	(5,5,6) or skip a slot

APPENDIX 2. ARTS **A3.05** CRDA KEYBOARD ENTRIES

1 **PURPOSE.** This appendix details the format and purpose for ARTS keyboard entries used for CRDA operations.

Supervisory keyboard entry to enable a ghosting application.

F7,N,d,(T or S),E

d= Single digit (1 through CRCFGQ) that specifies the adapted runway pair (configuration).

Supervisory keyboard entry to disable a ghosting application.

F7,N,d,D,E

d= Single digit that specifies the adapted runway pair.

Controller keyboard entry to toggle on and off the display of ghosting information in the System Data Area.

F7,N,E

Controller keyboard entry to toggle the display of all ghost on a given approach.

F7,N,r,E

r= Runway alpha-character I.D.

Controller keyboard entry to toggle the display of all ghost on a given approach.

F7,N.a.dd,E

a= Alpha-character airport I.D. (Cannot be L,R,or C)

dd= Runway number (one or two digits)

Controller keyboard entry to drop all GDB's currently displayed.

F7,N,ALL,E

Controller keyboard entry to enable or inhibit the display of all Ghost Data Blocks (GDB) on a given approach.

F7,N,r,[E or I],E
r= Runway alpha-character I.D.

Controller keyboard entry to enable or inhibit the display of all Ghost Data Blocks (GDB) on a given approach.

F7,N,a,dd,(L,R, or C),[E or I],E
a= Alpha-character airport I.D.
dd= Runway number(one or two digits)
L,R,or C= For Parallel runways(optional)

Controller keyboard entry to change leader direction of all Ghost Data Blocks.

F7,N,L,d,E
d= Single digit direction (I through 9 excluding 5)

Controller keyboard entry to change leader direction of all Ghost Data Blocks on a given approach.

F7,N,L,d,E
d= Single digit direction (I through 9 excluding 5)
r= Runway alpha-character I.D.

Controller keyboard entry to generate a Ghost Data Block if it exists for the track.

F7,N,S (to an associated track)

Controller keyboard entry to suppress the display of a Ghost Data Block(GDB).

F7,N,S (to a Ghost Data Block)

Controller keyboard entry to display information about the Ghost Data Block's corresponding associated track.

F7,N*,S (to a Ghost Data Block)

Controller FORCE entry that forces an associated track into qualifying for ghosting. This will override everything except the range/azimuth defined for the ghosting qualifying area.

F7,N,r,S (to an associated track)
r = Runway alpha-character I.D.

NOTE: The runway ID specified in this entry is the runway the aircraft will land on and not where you want to see the ghost.

Controller keyboard entry to change leader direction of a Ghost Data Block.

F7,N,L.d,S (to a Ghost Data Block)

d = single digit (1 through 9) except 5

NOTE: The entries detailed below are examples only.

Purpose	Message Format
Supervisor Enable CRDA Tie Runway (number)	F7,N,T,1,1N,1B,Enter
Supervisor Enable CRDA Stagger Runway (number)	F7,N,S,1,1S,1N,Enter
Controller Enable of the Tie or Stagger function that was previously enabled by the Supervisory entry.	F7,N,O,Enter

APPENDIX 3. FACILITY ATCT CRDA REPORT WORKSHEET

1 PURPOSE. The CRDA report worksheet should be used to document all Phase 2A.

2. INSTRUCTIONS.

Item 1. Indicate by a check mark when a Phase 2A operation was conducted using stagger aid.

Item 2. Indicate the date the demonstration was conducted.

Item 3. Indicate the start and stop times of the evaluation.

Item 4. Record the weather observation including surface wind at the time of the evaluation.

Item 5. Indicate the wind aloft.

Item 6. Indicate the runways in use for arrivals and departures.

Item 7. Indicate the Airport Acceptance Rate (AAR).

Item 8. Aircraft Interval. Indicate the requested spacing (interval) between aircraft on Runway (number) and Runway (number). This item is only required for a stagger operation.

Item 9. Indicate the number of operations conducted during the time interval.

Note. An example of a facility worksheet can be found on the following page.

FACILITY ATCT CRDA WORKSHEET

1. Phase 2A _____
2. Date _____ 3. Start _____ (Z), Stop _____ (Z)
4. Weather _____ Wind (Surface) _____
5. Winds aloft (If available)
6. Runways in Use Landing _____ Departing _____
7. AAR _____
8. Acft Interval _____
9. Indicate the number of operations conducted during the time interval. _____

APPENDIX 4. TRAINING

Facility managers electing to utilize the DCIA/CRDA concept shall develop and administer classroom and laboratory training (ETG) consistent with locally established DCIA/CRDA programs. The number of scenario problems and the length of time on simulation equipment shall be determined by the facility manager.

CRDA training has been incorporated into the Terminal Instructional Program Guide (IPG) and is considered as part of the field qualification training program. Because of the site specificity of the program, nationally developed lesson plans will not be developed. Suggested lesson plan content should include:

- 1 A review of Order 7110.110A, Dependent Converging Instrument Approaches (DCIA) with Converging Runway Display Aid (CRDA).

- 2 Locally adapted procedures for each runway including missed approaches and coordination between control personnel.

- 3 Locally developed ETG scenarios which provide instructions on the use of CRDA including ghost targets and staggered approaches.

APPENDIX 5. EXAMPLES OF RESPONSIBILITIES.a. The CRDA Implementation Manager shall:

- (1) Oversee operational implementation of CRDA.
- (2) Coordinate individual implementation goals (spacing, items to **be** documented, etc.) with the area manager.
- (3) Inform the area manager of the current step-down weather and spacing minima for operation in use.

b. The Area Manager shall:

- (1) Ensure CRDA is used whenever operational and weather conditions permit.
- (2) Ensure CRDA worksheets (Appendix 3) are completed for each CRDA operational period.
- (3) Enclose CRDA worksheets with daily operational logs.
- (4) Inform the appropriate supervisors and coordinators (e. g. Traffic Management Coordinator (TMC), TRACON Supervisor, and Tower Supervisor) of appropriate step-down minima in use for the given phase.

c. The TRACON Supervisor or Traffic Management Coordinator (TMC) (if applicable) shall:

- (1) Complete the CRDA worksheet for each CRDA operational period.
- (2) Advise Tower Supervisor (SC) when initiating/terminating CRDA operations. Include the aircraft identification of the first and last aircraft in the stagger.
- (3) Enable CRDA operation via ARTS keyboard entry in accordance with Appendix 2.
- (4) Ensure all operating positions are aware of the appropriate stagger separation in use for the given operation.

d. The Tower Supervisor shall:

(1) Ensure the approach in use portion of the ATIS states "Dependent converging approaches to Runway (number) and Runway (number) in use" during stagger operations.

(2) Advise AS or TMC when weather conditions are such that Local Control will be unable to provide visual separation between aircraft on converging finals.